AMENDMENTS TO THE CLAIMS:

Claims 1-90 (cancelled)

91. (original) A screw formed of cortical bone for use in the human body, said screw comprising a leading end, a trailing end opposite said leading end, and a shaft therebetween, said shaft having a mid-longitudinal axis, a length, and a thread extending from said shaft along at least a portion of its length, said shaft having a cross section transverse to said mid-longitudinal axis through said thread having a concavedly arcuate portion and a covexedly arcuate portion opposite said concavedly arcuate portion, said cross section bisecting a rotation of said thread.

92. (original) The screw of claim 91, wherein said cross section has opposite convex portions with approximately the same radius, said concavedly arcuate portion and said convexedly arcuate portion being between said opposite convex portions, said convexedly arcuate portion having a radius greater than the radius of said opposite convex portions, said cross section being through said concavedly arcuate portion of said thread.

93. (original) The screw of claim 91, wherein said trailing end is configured to cooperatively engage at least a portion of the screw hole of an implant so as to prevent said screw from linear motion along the mid-longitudinal axis of said shaft in a direction opposite to the direction of insertion when said screw is threaded through a screw hole to attach the implant to a bone portion of the human body.

94. (original) The screw of claim 91, wherein said screw is formed substantially of cortical bone of a single cortical thickness.

95. (original) The screw of claim 94, further comprising an enlarged portion proximate said trailing end with a dimension transverse to the mid-longitudinal axis of said shaft greater than said outer diameter of said thread, said enlarged portion configured to prevent said head from passing through the screw hole in the implant.

96. (original) The screw of claim 95, wherein said enlarged portion forms a head.

97. (original) The screw of claim 95, wherein said enlarged portion forms a lip.

98. (original) The screw of claim 94, wherein said trailing end includes a second thread having a different thread pitch than said thread along said shaft.

99. (original) The screw of claim 98, wherein the thread pitch of said second thread is similar to a metal screw pitch.

100. (original) The screw of claim 98, wherein the thread pitch of said thread along said shaft is similar to a wood screw pitch

101. (original) The screw of claim 94, wherein the thread pitch of said thread along said shaft is similar to a wood screw pitch.

102. (original) The screw of claim 94, wherein at least a portion of said trailing end is expandable.

103. (original) The screw of claim 102, wherein at least a portion of said trailing end is divided into at least two members with an opening therebetween.

104. (original) The screw of claim 103, further comprising an insert configured to fit into said opening of said trailing end and to move said at least two members apart when inserted into said opening.

105. (original) The screw of claim 104, wherein said insert is configured to be inserted by linear advancement into said opening.

106. (original) The screw of claim 105, wherein said insert has a cruciate shape and said opening has a corresponding cruciate shape.

107. (original) The screw of claim 104, wherein said insert is configured to be inserted by rotational movement into said opening.

108. (original) The screw of claim 107, wherein said insert is threaded.

109. (original) The screw of claim 94, wherein at least a portion of said trailing end is configured to cooperatively engage a driving instrument for insertion of said screw.

110. (original) The screw of claim 109, wherein said trailing end includes a recess to cooperatively engage a driving instrument.

111. (original) The screw of claim 110, wherein said recess is one of cruciate-shape and hex-shaped.

112. (original) The screw of claim 109, wherein said trailing end includes a protrusion to cooperatively engage a driving instrument.

113. (original) The screw of claim 112, wherein said protrusion has a hex-shaped perimeter.

114. (original) The screw of claim 94, wherein said thread is sharper proximate said leading end than proximate said trailing end.

115. (original) The screw of claim 94, wherein said thread has a V-shaped cross section with an apex and a base adjacent to said shaft, said base being substantially wider than said apex.

116. (original) The screw of claim 94, wherein said thread has a peak as measured from said shaft, the peak being greater proximate said leading end than said trailing end.

117. (original) The screw of claim 94, wherein said shaft has a root diameter that increases in the direction from said leading end to said trailing end.

118. (original) The screw of claim 94, wherein said leading end forms a tip and said tip is fluted.

119. (original) The screw of claim 94, wherein said cortical bone is obtained from a human.

120. (original) The screw of claim 94, wherein said cortical bone is obtained from a generally intramembraneously formed cortical bone.

121. (original) The screw of claim 94, wherein said cortical bone is obtained from a large tubular bone of a human.

122. (original) The screw of claim 121, wherein said cortical bone is from the diaphyseal region of said large tubular bone.

123. (original) The screw of claim 121, wherein the tubular bone is a femur.

124. (original) The screw of claim 94, further comprising a bioresorbable material other than cortical bone.

125. (original) The screw of claim 124, wherein said material includes bioresorbable plastics.

126. (original) The screw of claim 125, wherein said material includes at least one of glycolide polymers, lactide, capralactone, trimethylene carbonate, and dioxanone.

127. (original) The screw of claim 94, wherein said screw comprises bone growth promoting material.

128. (original) The screw of claim 127, wherein said bone growth promoting material is selected from one of bone morphogenetic protein, hydroxyapatite, and genes coding for the production of bone.

129. (original) The screw of claim 94, wherein said screw is treated with a bone growth promoting substance.

130. (original) A screw comprising a leading end, a trailing end opposite said leading end, and a shaft therebetween, said shaft having a mid-longitudinal axis, a length, and a thread extending from said shaft along at least a portion of its length, said shaft having a cross section transverse to said mid-longitudinal axis through said thread having a concavedly arcuate portion and a covexedly arcuate portion opposite said concavedly arcuate portion, said cross section bisecting a rotation of said thread, said screw being formed by the process of cutting a strip of cortical bone having a single cortical thickness from a long bone in the direction of the longitudinal axis of the long bone and machining said strip to form a thread.

131. (original) The screw of claim 130, wherein said strip of cortical bone is cut with a trephine having a diameter greater than the cortical thickness of the long bone.

132. (original) The screw of claim 131, wherein said cross section has opposite convex portions with approximately the same radius, said concavedly arcuate portion and said convexedly arcuate portion being between said opposite convex portions, said convexedly arcuate portion having a radius greater than the radius of said opposite

convex portions, said cross section being through said concavedly arcuate portion of said thread.

133. (original) A method for forming a screw made of cortical bone, comprising the steps of:

cutting a strip of cortical bone having a single cortical thickness from a long bone in the direction of the longitudinal axis of the long bone; and

machining said strip to form a screw having a shaft with a mid-longitudinal axis, a length, and a thread extending from said shaft along at least a portion of its length, said shaft having a cross section transverse to said mid-longitudinal axis through said thread having a concavedly arcuate portion and a covexedly arcuate portion opposite said concavedly arcuate portion, said cross section bisecting a rotation of said thread.

134. (original) The method of claim 133, wherein the cutting step includes the sub-step of using a trephine having a diameter greater than the cortical thickness of the long bone.

135. (original) The method of claim 134, wherein the machining step includes the sub-steps of forming said cross section with opposite convex portions having approximately the same radius, said concavedly arcuate portion and said convexedly arcuate portion being between said opposite convex portions, said convexedly arcuate portion having a radius greater than the radius of said opposite convex portions, said cross section being through said concavedly arcuate portion of said thread.

Claims 136-138 (cancelled)

139. (previously presented) The apparatus of claim 91, in combination with a bone growth promoting material.

140. (previously presented) The apparatus of claim 139, wherein said bone growth promoting material includes at least one of bone morphogenetic protein, mineralizing proteins, hydroxyapatite, and genetic material coding for the production of bone.

141. (previously presented) The apparatus of claim 130, in combination with a bone growth promoting material.

142. (previously presented) The apparatus of claim 141, wherein said bone growth promoting material includes at least one of bone morphogenetic protein, mineralizing proteins, hydroxyapatite, and genetic material coding for the production of bone.

143. (previously presented) The method of claim 133, further comprising the step of coating the screw with at least one of bone morphogenetic protein, mineralizing proteins, hydroxyapatite, and genetic material coding for the production of bone.

144. (new) The screw of claim 91, in combination with an instrument for inserting said screw.

145. (new) The screw of claim 130, in combination with an instrument for inserting said screw.